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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,887	12/30/2004	Yuichi Tokita	S1459.70056US00	2734

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WOLF GREENFIELD & SACKS, P.C.  
600 ATLANTIC AVENUE  
BOSTON, MA 02210-2206

EXAMINER
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TRINH, THANH TRUC

ART UNIT	PAPER NUMBER
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1795

MAIL DATE	DELIVERY MODE
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12/20/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/519,887

Applicant(s)

TOKITA ET AL.

Examiner

Thanh-Truc Trinh

Art Unit

1795

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 06 December 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.


**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☒ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

Continuation of 11. does NOT place the application in condition for allowance because: The Applicant continues to argue that the combination of Wariishi and Osuka is improper because (1) a person of ordinary skill in the art would not have replaced a photoelectric conversion dye with a molecular wire, (2) a person of ordinary skill in the art would understand that absorbance is different from photoelectric conversion, (3) the rejections are improper because they are based entirely upon hindsight reasoning in view of Applicant's disclosure, (4) the claimed invention would not have been obvious in view of Wariishi and Osuka under the TSM test or any other test. The Applicant explains the reason for a molecular wire would not be replace with a conversion dye because "a wire only serves to conduct electricity, not to convert light into electricity". Applicant also cites a definition of the word "absorbance" from Merriam Webster's dictionary that "absorbance" is "the ability of a layer of a substance to absorb radiation expressed mathematically as the negative common logarithm of transmittance" and then states "However, the absorbance, or the transparency of the material is not the same as the capability of the material to achieve photoelectric conversion". The Examiner respectfully disagrees with the Applicant's arguments. First of all, Osuka et al. teaches the multi-porphyrin system such as the disclosed porphyrin polymers can be used for opto-electronic material (See col. 1 lines 44-60 of Osuka et al.). Such opto-electronic material includes photocell (or solar cell) material (See attached definition of the word "optoelectronic"). Secondly, Wariishi et al. teaches using porphyrin for a dye material (See col. 28 line 44 to col. 30 of Wariishi et al.). Wariishi et al. also teaches "the light-absorption and the generation of electrons and positive holes are primarily caused in the dye, and the semiconductor fine particles receive and then convey the electrons" (See col. 23 lines 64-65 of Wariishi et al.). Osuka et al. teaches the disclosed porphyrin polymers has a strong absorbance in the visible region (See col. 1 lines 46-50 of Osuka et al.), or in other words, porphyrin polymers has a strong ability to absorb light. Osuka et al. also teaches the porphyrin polymers are "sufficient to induce rapid non-coherent excitation energy transfer hopping" (See col. 1 lines 64-66 of Osuka et al.), have "more electron delocalization" and can be used as "electric conducting wire" (See col. 2 lines 25-30 of Osuka et al.), which are the phenomena of generating and transporting electrons. Therefore it would certainly have been obvious to one skilled in the art to use porphyrin polymers taught by Osuka et al. in the solar cell of Wariishi et al., because Osuka et al. suggests that porphyrin polymers can be used in optoelectronic application and Wariishi et al. teaches using porphyrin as a dye. In addition, the porphyrin polymers disclosed by Osuka et al. functions exactly the way Wariishi describes a dye should be. Porphyrin polymers of Osuka et al. can absorb light and conduct electrons (See col. 1 lines 28-32 of Osuka et al.) which are the most two important characteristics in photoelectric conversion, an ordinary skill in the art would certainly use the porphyrin polymers taught by Osuka et al. in place of a dye in the solar cell of Wariishi et al. The rejection under 103(a) in combination of Wariishi and Osuka is therefore proper. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

  
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